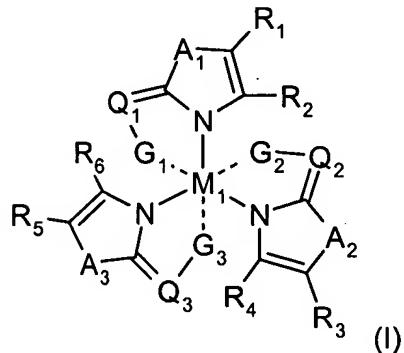


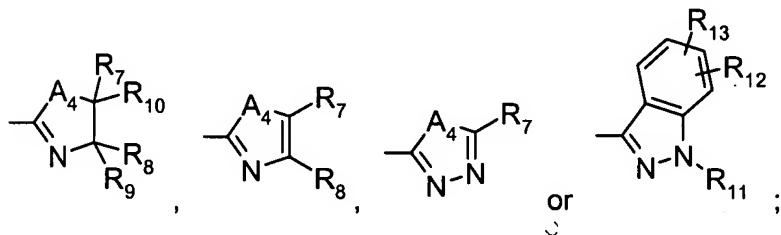
In the claims:

1. (currently amended) An optical recording medium comprising a substrate, a recording layer and optionally one or more reflecting layers, wherein the recording layer comprises a compound of formula



or a tautomer thereof, wherein

G₁, G₂ and G₃ are each independently of the other



A₁, A₂ and A₃ are each independently of the other N(R₁₄), O, S or Se and A₄ is C(C₁-C₅alkyl)₂, C(C₄-C₅alkylene), N(R₁₄), O, S, Se, N=C(R₁₅) or CH=C(R₁₆);

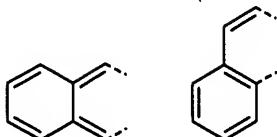
M₁ is an at least trivalent metal of groups 3 to 15 [formerly groups IIIA to VB];, preferably Co(III), Cr(III), Ru(III), Fe(III), Mn(III), V(III), Ti(III), Y(III), Mo(III), W(III), Nb(III), Rh(III), Ta(III), Ir(III), Au(III), Al(III), As(III), Sb(III), Bi(III), Sc(III), La(III), Ce(III), Pr(III), Nd(III), Pm(III), Sm(III), Eu(III), Gd(III), Tb(III), Dy(III), Ho(III), Er(III), Tm(III), Yb(III) or Lu(III), most preferred Co(III) or Cr(III);

Q₁, Q₂ and Q₃ are each independently of the other C(R₁₇), N or P;

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀ and R₁₆ are each independently of the others hydrogen, R₁₈, or C₆-C₁₂aryl, C₄-C₁₂heteroaryl, C₇-C₁₂aralkyl or C₅-C₁₂heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈; or

R₁ and R₂, R₃ and R₄, R₅ and R₆, R₇ and R₈, R₇ and R₁₅ and/or R₇ and R₁₆, together in pairs, are C₃-C₆alkylene or C₃-C₆alkenylene, each of which is unsubstituted or substituted by one or more,

where applicable identical or different, radicals R₁₉ and may be uninterrupted or interrupted by O, S or



N(R₁₄), or 1,4-buta-1,3-dienylene, or , each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈ and in which 1 or 2 carbon atoms may have been replaced by nitrogen;

R₁₁, R₁₄ and R₁₅ are each independently of the others C₁-C₂₄alkyl, C₃-C₂₄cycloalkyl, C₂-C₂₄alkenyl, C₃-C₂₄cycloalkenyl, C₁-C₄alkyl-[O-C₁-C₄alkylene]_m or C₁-C₄alkyl-[NH-C₁-C₄alkylene]_m, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₉; or C₆-C₁₂aryl, C₄-C₁₂heteroaryl, C₇-C₁₂aralkyl or C₅-C₁₂heteroaralkyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈;

R₁₂, R₁₃ and R₁₈ are each independently of the others R₂₀ or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₁-C₁₂alkylthio, C₃-C₁₂cycloalkylthio, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₉;

R₁₇ is hydrogen, halogen, cyano, hydroxy, C₁-C₁₂alkoxy, C₃-C₁₂cycloalkoxy, C₁-C₁₂alkylthio, C₃-C₁₂cycloalkylthio, amino, nitro, formyl, C(R₁₆)=CR₂₁R₂₂, C(R₁₆)=NR₂₃, N=CR₂₃R₂₄, NHR₂₅, NR₂₆R₂₇, COO-R₂₆, carboxy, carbamoyl, CONH-R₂₆, CONR₂₆R₂₇, R₂₈, N=N-R₂₈ or R₂₉;

R₁₉ is halogen, hydroxy, O-R₂₆, O-CO-R₂₆, S-R₂₆, NH₂, NH-R₂₆, NR₂₆R₂₇, NH₃⁺, NH₂R₂₆⁺, NHR₂₆R₂₇⁺, NR₂₅R₂₆R₂₇⁺, NR₂₆-CO-R₂₅, NR₂₆COOR₂₅, cyano, formyl, COO-R₂₆, carboxy, carbamoyl, CONH-R₂₆, CONR₂₆R₂₇, ureido, NH-CO-NHR₂₅, NR₂₆-CO-NHR₂₅, phosphato, PR₂₅R₂₆, POR₂₅OR₂₆, P(=O)OR₂₅OR₂₆, OPR₂₅R₂₆, OPR₂₅OR₂₆, OP(=O)R₂₅OR₂₆, OPO₃R₂₆, OP(=O)OR₂₅OR₂₆, SO₂R₂₆, sulfato, sulfo, R₂₈, N=N-R₂₈, or C₁-C₁₂alkoxy or C₁-C₁₂cycloalkoxy each unsubstituted or mono- or poly-substituted by halogen;

R₂₀ is halogen, nitro, cyano, thiocyanato, hydroxy, O-R₂₃, O-CO-R₂₃, S-R₂₃, CHO, COR₂₄, CHOR₂₃OR₃₀, CR₂₄OR₂₃OR₃₀, R₃₁, N=N-R₃₁, N=CR₂₃R₂₄, N=CR₂₁R₂₂, C(R₃₂)=NR₂₃, C(R₃₂)=NR₂₁, C(R₃₂)=CR₂₁R₂₂, NH₂, NH-R₂₃, NR₂₃R₂₄, NH₃⁺, NH₂R₂₃⁺, NHR₂₃R₂₄⁺, NR₂₃R₂₄R₃₀⁺, CONH₂, CONHR₂₃, CONR₂₃R₂₄, SO₂R₂₃, SO₂NH₂, SO₂NHR₂₃, SO₂NR₂₃R₂₄, COOH, COOR₂₃, OCOOR₂₃, NHCOR₂₃, NR₂₃COR₃₀, NHCOOR₂₃, NR₂₃COOR₃₀, ureido, NR₂₃-CO-NHR₃₀, B(OH)₂, B(OH)(OR₂₃), B(OR₂₃)OR₃₀,

phosphato, $\text{PR}_{23}\text{R}_{30}$, $\text{POR}_{23}\text{OR}_{30}$, $\text{P}(\text{=O})\text{OR}_{23}\text{OR}_{30}$, $\text{OPR}_{23}\text{R}_{30}$, $\text{OPR}_{23}\text{OR}_{30}$, $\text{OP}(\text{=O})\text{R}_{23}\text{OR}_{30}$, $\text{OP}(\text{=O})\text{OR}_{23}\text{OR}_{30}$, $\text{OPO}_3\text{R}_{23}$, sulfato or sulfo;

R_{21} and R_{22} are each independently of the other $\text{NR}_{26}\text{R}_{27}$, CN, CONH₂, CONHR₂₃, CONR₂₃R₂₄ or COOR₂₄;

R_{23} , R_{24} and R_{30} are each independently of the others R_{31} , or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals; or R_{16} and R_{23} together, R_{17} and R_{23} together and/or R_{23} and R_{30} together are C₂-C₁₂alkylene, C₃-C₁₂cycloalkylene, C₂-C₁₂alkenylene or C₃-C₁₂cycloalkenylene, each of which is unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals; or

R_{23} and R_{24} together with the common nitrogen are pyrrolidine, piperidine, piperazine or morpholine, each of which is unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl; or carbazole, phenoxazine or phenothiazine, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{33} ;

R_{25} , R_{26} and R_{27} are each independently of the others C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl, C₃-C₁₂cycloalkenyl, C₆-C₁₂aryl, C₄-C₁₂heteroaryl, C₇-C₁₂aralkyl or C₅-C₁₂heteroaralkyl; or

R_{26} and R_{27} together with the common nitrogen are pyrrolidine, piperidine, piperazine or morpholine, each of which is unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl;

R_{28} is C₆-C₁₂aryl, C₄-C₁₂heteroaryl, C₇-C₁₂aralkyl or C₅-C₁₂heteroaralkyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{20} or R_{29} ;

R_{29} is C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals;

R_{31} is C₆-C₁₂aryl, C₄-C₁₂heteroaryl, C₇-C₁₂aralkyl or C₅-C₁₂heteroaralkyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{33} ;

R_{32} is hydrogen, cyano, hydroxy, C_1 - C_{12} alkoxy, C_3 - C_{12} cycloalkoxy, C_1 - C_{12} alkylthio, C_3 - C_{12} cycloalkylthio, amino, NHR_{25} , $NR_{26}R_{27}$, R_{28} , halogen, nitro, formyl, $N=N-R_{28}$, $COO-R_{26}$, carboxy, carbamoyl, $CONH-R_{26}$, $CONR_{26}R_{27}$, $N=CR_{23}R_{24}$, or C_1 - C_{12} alkyl, C_3 - C_{12} cycloalkyl, C_2 - C_{12} alkenyl or C_3 - C_{12} cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C_1 - C_{12} alkoxy or C_3 - C_{12} cycloalkoxy radicals;

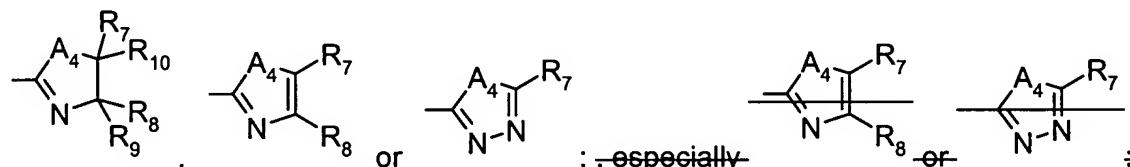
R_{33} is nitro, SO_2NHR_{26} , $SO_2NR_{26}R_{27}$, or C_1 - C_{12} alkyl, C_3 - C_{12} cycloalkyl, C_1 - C_{12} alkylthio, C_3 - C_{12} cycloalkylthio, C_1 - C_{12} alkoxy or C_3 - C_{12} cycloalkoxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{19} ;

and

m is a number from 1 to 10.

2. (currently amended) An optical recording medium according to claim 1, wherein M1 is a trebly positively charged cation, ~~preferably Co^{3+} , Cr^{3+} , Ru^{3+} , Fe^{3+} , Mn^{3+} , Au^{3+} , Al^{3+} , Sb^{3+} , Bi^{3+} , Sc^{3+} , La^{3+} or Co^{3+} , most preferred Co^{3+} or Cr^{3+}~~ .

3. (currently amended) An optical recording medium according to claim 1 or 2, wherein the recording layer comprises a compound of formula (I) wherein A_1 , A_2 , A_3 and A_4 are each independently of the others O, S or N(R_{14}) and/or Q_1 , Q_2 and Q_3 are $C(R_{17})$ or N; G_1 , G_2 and G_3 are each independently of the other



R_1 , R_3 , R_5 , R_7 , R_{10} and R_{16} are each independently of the others hydrogen, R_{18} , or C_6 - C_{12} aryl or C_7 - C_{12} aralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{18} ;

R_2 , R_4 , R_6 , R_8 and R_9 are each independently of the others H, F, OH, OCH_3 , OCF_3 , CH_3 , CF_3 , C_2H_5 , $C_2H_2F_3$, $C_2H_3F_2$, C_2F_5 , CH_2OH , CF_2OH or CH_2OCH_3 ;

R_{14} and R_{15} are each independently of the others unsubstituted or R_{19} -substituted C_1 - C_8 alkyl;

R_{12} and R_{18} are each independently of the other halogen, nitro, cyano, $O-R_{23}$, CHO , $CH=C(CN)_2$, $CH=C(CN)CONH_2$, $CH=C(CN)CONHR_{23}$, $CH=C(CN)CONR_{23}R_{24}$, $CH=C(CN)COOR_{23}$, $CH=C(COOR_{23})COOR_{24}$, $CONH_2$, $CONHR_{23}$, $CONR_{23}R_{24}$, $SO_2C_1-C_{12}alkyl$, SO_2NH_2 , SO_2NHR_{23} , $SO_2NR_{23}R_{24}$, $COOH$, $COOR_{23}$, $NHCOR_{23}$, $NR_{23}COR_{30}$, $NHCOOR_{23}$, $NR_{23}COOR_{30}$, ureido, $P(=O)OR_{23}OR_{30}$, sulfo, or $C_1-C_{12}alkyl$, $C_1-C_{12}alkylthio$ or $C_1-C_{12}alkoxy$ each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{19} ;

R_{17} is hydrogen, halogen, cyano, nitro, formyl, $C(R_{16})=CR_{21}R_{22}$, $C(R_{16})=NR_{23}$, $COO-R_{26}$, carboxy, carbamoyl, $CONH-R_{26}$, $CONR_{26}R_{27}$, $N=N-R_{28}$, or $C_1-C_{12}alkyl$ unsubstituted or substituted by one or more halogen substituents;

R_{19} is halogen, hydroxy, $O-R_{26}$, NH_2 , $NH-R_{26}$, $NR_{26}R_{27}$, $NR_{26}-CO-R_{25}$, $NR_{26}COOR_{25}$, cyano, $COO-R_{26}$, carboxy, $CONH-R_{26}$, $CONR_{26}R_{27}$, sulfato, sulfo, or $C_1-C_{12}alkoxy$ unsubstituted or mono- or poly-substituted by halogen;

R_{23} , R_{24} and R_{30} are each independently of the others $C_1-C_{12}alkyl$ unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy or $C_1-C_{12}alkoxy$ radicals, or unsubstituted $C_6-C_{12}aryl$ or $C_7-C_{12}aralkyl$; or

R_{23} and R_{24} together with the common nitrogen are morpholine, or piperidine N-substituted by C_1-C_4alkyl ;

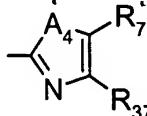
R_{25} , R_{26} and R_{27} are each independently of the others $C_1-C_{12}alkyl$, $C_2-C_{12}alkenyl$, $C_6-C_{12}aryl$ or $C_7-C_{12}aralkyl$; or

R_{26} and R_{27} together with the common nitrogen are morpholine, or piperidine N-substituted by C_1-C_4alkyl ;

R_{31} is unsubstituted or substituted $C_6-C_{12}aryl$ or $C_7-C_{12}aralkyl$, especially a metallocenyl radical; and/or

m is a number from 1 to 4.

4. (currently amended) An optical recording medium according to claim 1, 2 or 3, wherein the recording layer comprises a compound of formula (I) wherein Q₁, Q₂ and Q₃ are C(R₁₇); G₁, G₂ and G₃

are ; and A₁, A₂, A₃ and A₄ are O, S or N(R₁₄);

R₁₄ is C₁-C₂₄alkyl, C₁-C₄alkyl-[O-C₁-C₄alkylene]_m or C₁-C₄alkyl-[NH-C₁-C₄alkylene]_m, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₉, or C₆-C₁₂aryl unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈;

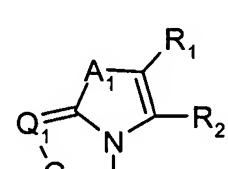
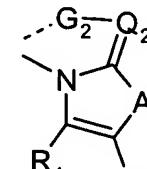
R₁₇ is hydrogen, cyano, COO-R₂₆ or C₁-C₁₂alkyl;

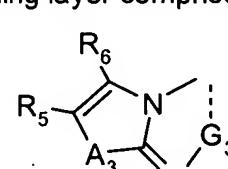
R₁₈ is halogen, nitro, cyano, O-R₂₃, CH=C(CN)₂, COOR₂₃, ureido, CONR₂₆R₂₇, SO₂R₂₆, P(=O)OR₂₃OR₃₀ or unsubstituted or substituted C₁-C₁₂alkyl;

R₁₉ is halogen, hydroxy, O-R₂₆, cyano, COO-R₂₆ or carboxy; and

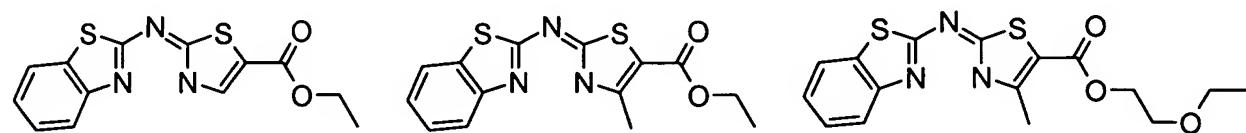
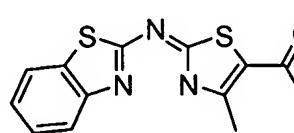
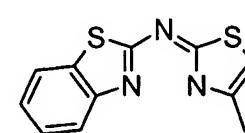
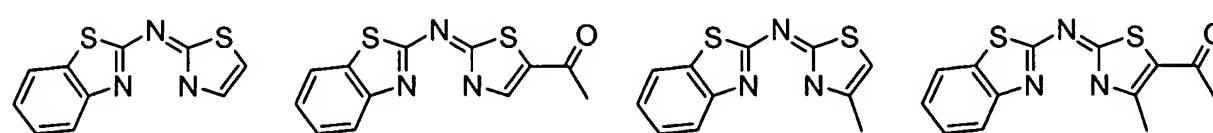
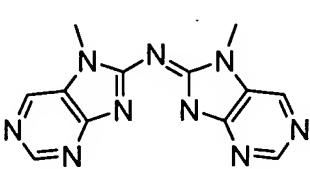
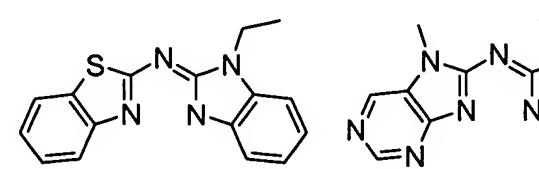
R₃₇ is H, methyl, ethyl or isopropyl, in particular H.

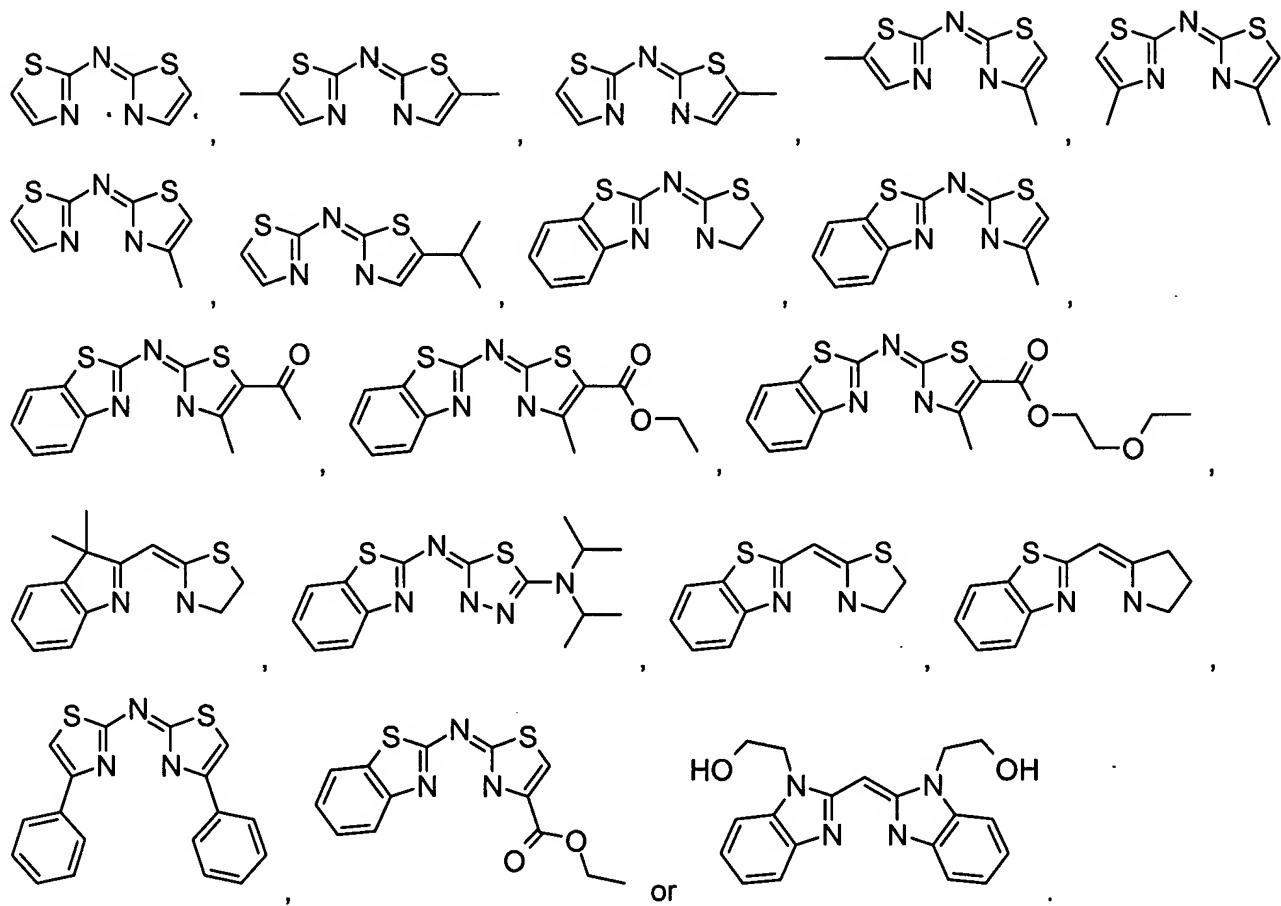
5. (currently amended) An optical recording medium according to claim 1, 2, 3 or 4, wherein the

recording layer comprises a compound of formula (I) wherein  and/or 

and/or 

is/are





6. (currently amended) An optical recording medium according to claim 1, 2, 3, 4 or 5, wherein the recording layer is substantially amorphous.

7. (currently amended) An optical recording medium according to claim 1, 2, 3, 4, 5 or 6, additionally comprising a covering layer, wherein substrate, reflector layer, recording layer and covering layer are arranged in that order.

8. (currently amended) An optical recording medium according to claim 1, 2, 3, 4, 5, 6 or 7, which in addition to comprising a compound of formula (I) comprises a metal-free chromophore.

9. (currently amended) A method of recording or playing back data, wherein the data on an optical recording medium according to claim 1, 2, 3, 4, 5, 6, 7 or 8 are recorded or played back at a wavelength of from 350 to 500 nm.

10. (original) A compound of formula (I) according to claim 1.

11. (original) A compound according to claim 10, wherein R₂, R₄, R₆, R₈, R₉ and R₁₁ are hydrogen.

12. (currently amended) ~~Use of a compound according to claim 10 or 11-A method of~~ for optical recording, wherein the data is recorded on an optical recording medium containing a compound according to claim 10 preferably at a wavelength of from 350 to 500 nm.

13. (new) An optical recording medium according to claim 1, wherein in formula (I) M₁ is Co(III), Cr(III), Ru(III), Fe(III), Mn(III), V(III), Ti(III), Y(III), Mo(III), W(III), Nb(III), Rh(III), Ta(III), Ir(III), Au(III), Al(III), As(III), Sb(III), Bi(III), Sc(III), La(III), Ce(III), Pr(III), Nd(III), Pm(III), Sm(III), Eu(III), Gd(III), Tb(III), Dy(III), Ho(III), Er(III), Tm(III), Yb(III) or Lu(III).

14. (new) An optical recording medium according to claim 13, wherein M₁ is Co(III) or Cr(III).

15. (new) An optical recording medium according to claim 3, wherein R₃₁ is unsubstituted or substituted especially a metallocenyl radical.

16. (new) An optical recording medium according to claim 3, wherein in formula (I) M₁ is Co(III), Cr(III), Ru(III), Fe(III), Mn(III), V(III), Ti(III), Y(III), Mo(III), W(III), Nb(III), Rh(III), Ta(III), Ir(III), Au(III), Al(III), As(III), Sb(III), Bi(III), Sc(III), La(III), Ce(III), Pr(III), Nd(III), Pm(III), Sm(III), Eu(III), Gd(III), Tb(III), Dy(III), Ho(III), Er(III), Tm(III), Yb(III) or Lu(III).

17. (new) An optical recording medium according to claim 15, wherein M₁ is Co(III) or Cr(III).

18. (new) An optical recording medium according to claim 4, wherein in formula (I) M₁ is Co(III), Cr(III), Ru(III), Fe(III), Mn(III), V(III), Ti(III), Y(III), Mo(III), W(III), Nb(III), Rh(III), Ta(III), Ir(III), Au(III), Al(III), As(III), Sb(III), Bi(III), Sc(III), La(III), Ce(III), Pr(III), Nd(III), Pm(III), Sm(III), Eu(III), Gd(III), Tb(III), Dy(III), Ho(III), Er(III), Tm(III), Yb(III) or Lu(III).

19. (new) An optical recording medium according to claim 5, wherein in formula (I) M₁ is Co(III), Cr(III), Ru(III), Fe(III), Mn(III), V(III), Ti(III), Y(III), Mo(III), W(III), Nb(III), Rh(III), Ta(III), Ir(III), Au(III), Al(III), As(III), Sb(III), Bi(III), Sc(III), La(III), Ce(III), Pr(III), Nd(III), Pm(III), Sm(III), Eu(III), Gd(III), Tb(III), Dy(III), Ho(III), Er(III), Tm(III), Yb(III) or Lu(III).